

REMARKS/ARGUMENTS

Claims 1-8, 10-13, 24-32, 34-40, 42-44, 47, 49-55, and 57-72 remain in the application for further prosecution. Claims 15 and 17-22 have been cancelled. Claims 57-71 have been added. The Applicant thanks the Examiner for allowance of claims 1-8, 10-13 and 24-32.

§ 102 Rejection

Claims 15, 20-22 have been cancelled, rendering their rejection moot.

Claim 47 has been amended to include a “means for supporting said sub-reflector” and a “means for adjusting the position of said sub-reflector relative to said reflector.” U.S. Patent No. 6,166,700 to Jenkin (“Jenkin”) does not disclose a sub-reflector, means for supporting the sub-reflector, or means for adjusting the sub-reflector. For at least these reasons, claim 47 is believed to be allowable over Jenkin.

Claims 34, 36, 40, and 44 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,441,798 (“Ehrenberg”). Claims 34 and 44 have been amended to require that the single actuator adjusts “the position of said sub-reflector relative to said reflector....” Ehrenberg does not disclose a sub-reflector, let alone adjusting the sub-reflector relative to the reflector. Thus claims 34 and 44, their dependents 36 and 40 are believed to be allowable over Ehrenberg.

§ 103 Rejection

Claims 17-19 and 53 have been cancelled, rendering this rejection moot.

Claim 49 depends from claim 47 and thus includes all the limitations of claim 47. Neither of Jenkin nor U.S. Patent No. 6,350,037 to Adams (“Adams”) disclose a sub-reflector as claimed in claim 47. Furthermore, as stated previously, the Examiner has not provided any

support for the combination of a reference relating to an antenna structure with a reference relating to a car mirror. For at least these reasons, claim 49 is believed to be allowable.

Claims 35, 37-39, 42 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ehrenberg in view of U.S. Patent No. 5,874,925 to Choi ("Choi"). Claims 35, 37-39, 42 and 43 all depend from claim 34, and thus include the limitation of a sub-reflector and an actuator for adjusting the sub-reflector relative to the reflector. As stated above, Ehrenberg does not include these limitations. Neither does Choi.

Furthermore, as stated previously, Choi does not disclose a two-axis actuator (claim 35) or a two-axis motorized carriage (claims 37 and 38). In fact, Choi expressly teaches against using the motorized carriage for adjusting the azimuthal direction of the feed horn by disclosing use of an elastic hook 103 at each end to prevent the LNB case 100 from moving from side to side. Choi, column 2, lines 60-62.

For at least these reasons, claims 35, 37-39, 42 and 43 are believed to be allowable over the combination of Ehrenberg and Choi.

Claims 50-52, 54 and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jenkin in view of Choi. Claims 50-52, 54, and 55 all depend from claim 47, which includes the limitation of a sub-reflector and means for adjusting the sub-reflector. Neither Jenkin nor Choi disclose such features. Furthermore, as stated above in reference to claims 35, 37-39, 42 and 45, it is the Applicants' belief that Choi does not disclose the two axis actuator or two-axis motorized carriage as claimed. For at least these reasons claims 50-52, 54, and 55 are believed to be allowable over the combination of Jenkin in view of Choi.

New Claims

New claims 57-66 are believed to be allowable over the prior art. Independent claim 57 includes the limitation of “adjusting either/or both of a beam elevation and beam azimuth of the main beam axis of said antenna by adjusting the position of said one of said feed and said sub-reflector relative to said reflector.” Independent claim 61 requires “adjusting either/or both of a beam elevation and beam azimuth of the main beam axis of said antenna by adjusting the position of said sub-reflector relative to said reflector.” It is the Applicants’ belief that none of the prior art discloses such steps. Ehrenberg discloses rotating the polarization angle of the feed, which is determined by the angle of the feed horn waveguide with respect to the axis of the earth. Claims 57 and 61 require adjusting the beam azimuth and/or beam elevation with respect to the main reflector, which is not disclosed in Ehrenberg.

Claims 65, 66 and 67 are dependent on claims 34, 44 and 47, respectively, and are believed to be allowable for the reasons stated above in reference to these independent claims.

New claims 68-72 are believed to be allowable over the prior art. Independent claim 68 includes the limitation of “adjusting either/or both of a beam elevation and beam azimuth of the main beam axis of said antenna by adjusting an effective length of one or both of said support struts to thereby adjust the position of said feed relative to said reflectors.” It is the Applicants’ belief that none of the prior art discloses such a step. Bruns discloses a plurality of support elements 28a-28d to stabilize the feed horn relative to the focal point of the dish reflector. Bruns does not disclose adjusting the beam azimuth and/or the beam elevation with respect to the main reflector. Claims 69-72 are dependent on claim 68. For at least this reason, the new claims are believed to be allowable over Bruns.

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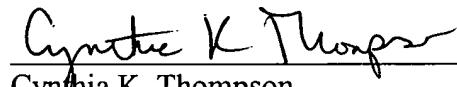
Conclusion

It is the Applicants' belief that all of the claims are now in condition for allowance and action towards that effect is respectfully requested.

If there are any matters which may be resolved or clarified through a telephone interview, the Examiner is requested to contact the undersigned attorney at the number indicated.

Respectfully submitted,

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